REMARKS

INTRODUCTION

Claims 1-26 were previously and are currently pending and under consideration.

Claims 1-26 are rejected.

No claims are amended herein.

No new matter is being presented, and approval and entry are respectfully requested.

REQUEST FOR RECONSIDERATION AND NEW OFFICE ACTION

As discussed below, Applicant respectfully submits that the previously amended claims recite features not found in the cited combination. Reconsideration of the rejection is requested. If the rejection maintained, a new Final Office Action addressing the remarks below is respectfully requested.

REJECTIONS UNDER 35 USC § 103

In the Office Action, at pages 3-8, claims 1-26 were rejected under 35 U.S.C. § 103 as being unpatentable over Hunkins and Patel. This rejection is traversed and reconsideration is requested.

TIMING OF DISTRIBUTING AND APPLYING UPDATES

Claim 1 recites automatically updating *when the update request is generated* (which in turn is responsive to an actual database update having occurred). Claim 7 recites appending the update request to a queue "when the update request is generated", reading it from the queue and "updating the shared subscriber directory server in real-time". See also claims 24-26, which recite variations of updating when an update request is generated or responsive to a change to subscriber information. Claim 22 recites "updating the shared subscriber directory server in real-time based on the update request".

Applicant previously explained that in various claims an update in one messaging system actuates an update in a central directory used by messaging systems. The Examiner responded (Office Action, item (B)), that "Hukins [sic] discloses the use of allowing data to be updated or synchronized automatically without user intervention, thereby providing and preserving data integrity", citing column 2, lines 48-58.

Respectfully, Applicant has not taken the position that the claims recite only that "updates are synchronized automatically without user intervention". Rather, Applicant's position was that according to the relevant claims the updating of data "in a subscriber database" of messaging system (claim 1, e.g.) actuates a corresponding update in the central directory. For example, claim 1 recites the directory being updated *when the request is generated*, and claim 25 recites that the update request is sent *when it is generated*. The Examiner correctly noted that updates in Hunkins are *applied* automatically. That is, a user enters an update request order, and at a later prescheduled time the update is applied automatically. Applicant does not disagree that Hunkins automatically applies updates.

However, Applicant has not argued mere automaticity in the relevant claims, rather Applicant has pointed out a difference in the timing of directory/target updates in the relevant claims. In Hunkins, it is unquestionable that updates are created by a user and then processed in a delayed batch fashion. The target synchronization database is not updated "when an update request" is made at the source of the update. Rather, an update occurs when a predetermined time arrives ("**When the scheduled time is reached**, the preferred embodiment begins processing each Change Object one by one", column 8, lines 6-9). In Hunkins, the user schedules the Project to be executed. See also item 144 in Figure 6 and column 7, line 61 to column 8, line 9. Also "the project is then scheduled ... At the appropriate time the project [containing update requests] is executed [to update the target databases]" (column 11, lines 9-14). This is a clear difference from the relevant claims.

In other words, Hunkins teaches only that updates are *applied* to the target automatically, rather than a user entering updates a target database. However, in Hunkins the timing is scheduled by the user rather than occurring *when* the original actuating change (or request) is made.

Applicant respectfully notes that the Examiner did not address the pertinent teachings of Hunkins brought to light in Applicant's prior Amendment. "The goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity" (MPEP § 706). Per MPEP § 707.07(f), "Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it." Applicant respectfully requests an explanation of how Hunkins can teach using a source update itself to actuate a target update when Hunkins clearly teaches using prescheduled batch processing to time the distribution of an update from an originating source to a destination target.

Put another way, in the relevant claims, a target is updated when a source is updated. However, in Hunkins, a user manually changes records in a centralized database 70. This generates a "project" which contains the user's changes. At a prescheduled later time, the changes are applied to target databases 11, 12, 13, and 14. As stated in Hunkins at column 7, line 43, to column 8, line 5:

> "When a change is made to the common database, the information ... is placed on the screen for the user ... The user modifies one or more fields and then saves or **commits those changes to the [common] database**. The preferred embodiment generates a Change Object ... The Change Object contains all of the information in it that is necessary to change the old record to be the new record ... [the system] go[es] into the **common database ... and makes the changes** as the user described. This happens and the common database is not representative of the new data. ... **The Change Object is now placed in a batch file** which is referred to as a Project ... he or she **schedules** the Project to be executed."

Hunkins updates a common database, generates a batch file (Project containing Change Objects), and at the prescheduled time distributes the updates. Hunkins clearly does not update a target *when* the source (common database 100) is updated.

Withdrawal of the rejection is respectfully requested.

NEW REFERENCE: PATEL

The Examiner acknowledged that Hunkins does not disclose different messaging systems. The Examiner has modified the Hunkins reference to apply to different messaging systems in Patel.

Patel discusses a system for providing a central subscriber database accessed by different voice messaging systems (VMS's). Figure 3 shows two voice messaging systems; VMS #1, which is item 15 in the figure, and VMS #2, which is item 17 in the figure (note, Figure 3 erroneously shows item 17 as VMS #1, however, per column 17, line 5, item 17 should show "VMS #2"). The VMS's are part of a regionwide messaging system (RMS) and route messages between themselves and other elements in the RMS. For the purpose of routing messages, the RMS is provided with two regionwide messaging directories, RMD #1 (item 40) and RMD #2 (item 42). These may be, for example, Lightweight Directory Access Protocol (LDAP) servers. Figure 3 also shows a network element 51, which contains a file 52 used to determine which RMD (RMD #1, or RMD #2) to used to route a given message. In Figure 3, the file 52 indicates that messages for area code "404" are routed using RMD #1, and messages for area code "770" are routed using RMD #2.

Following the circled numbers in Figure 3, a message is routed as follows:

1: subscriber 14 sends message (from box 770-925-7666, to box 770-925-7666)

2: VMS #1 passes the area code of the message - "770" - to the network element 51

3: network element 51 uses its file 52 to determine that the message is routed using RMD #2, which handles the "770" area code, this information is sent to the VMS #1

4: per the feedback from the network element 51, VMS #1 sends to RMD #2 the area code and exchange (770-925) of the destination box

5: RMD #2 extracts the routing information from its directory 45 (note, 770-662 maps to VMS #1), and returns this information to VMS #1

6: VMS #1 routes the message to VMS #1

7: VMS #2 (item 17) receives the message and sends it to recipient 38

As can be seen in Figure 3, the different routing directories (RMD #1 and RMD #2) each have their own mutually-exclusive routing information; directory 44 has area code 404, and directory 45 has area code 770.

A significant aspect of Patel is that different directories contain different routing information. This is made possible by the inclusion of network element 51, which allows a VMS to determine which RMD/directory to use when routing a message.

The reason that Patel takes this approach is to accommodate increasing demand on a directory. As discussed at column 9, lines 45-55, directories can be added to increase system-wide capacity. Therefore, it is essential that directories each handle their own different routing information. As stated further down in column 9, "RMDs 40, 42 do not include a record for each subscriber for the messaging system. Rather, the records in each of the RMDs 40, 42 are organized pursuant to a scheme that allows for routing information to be obtained regarding the subscribers of the messaging system without having to have a record for each subscriber" (emphasis added).

As discussed below with reference to the claims, this basic and unalterable design of Patel is, respectfully, both different than the Examiner's characterization and incompatible with the design of Hunkins.

PATEL DOES NOT SYNCHRONIZE DIFFERENT MESSAGE ROUTING DIRECTORIES

At page 3 of the Office Action, the rejection characterizes Patel as "providing information for a routing of messages between or among messaging platforms in a messaging system by moving messaging platform to different messaging platform" (last 6 lines of page 3). The rejection cites column 2, lines 50-60 of Patel, whose encompassing paragraph states, with emphasis added:

> When making a determination as to the organizational scheme for records to be included in the directories of the RWM system, the dynamic nature of messaging systems must be taken into account. For example, the respective assignment of subscribers to messaging platforms may change over time in efforts to load balance the overall RWM system. As another example, the respective assignment of subscribers to messaging platforms may change over time based on movement or other changes instituted by the subscriber. To explain, consider a subscriber who moves from one geographic area of the RWM system to another. With local number portability (LNP), the subscriber may retain his or her directory

> number, but be served by a different messaging platform of the RWM system. In the case of a subscriber's mailbox being moved from a messaging platform to a different messaging platform, *the record for the subscriber in the directory needs to reflect the change in messaging platform address so that messages for the subscriber are routed correctly and efficiently to the different messaging platform.*

What Patel is describing is the *shifting* of subscribers to different VMS hosts. For example, a user may be shifted to balance load in the overall RWM. If the purpose of shifting a user is to balance load, then clearly the user record is not synchronized (kept the same) on different messaging platforms, because this would increase or maintain the load on the RWM. Furthermore, the cited portion of Patel describes only the information on one directory. The cited portion does not describe or suggest synchronization between directories or synchronization of subscriber routing information.

As discussed above in the "PATEL" section, the subscriber routing directories in Patel are not synchronized, rather they contain different subscriber routing information. If the Examiner's characterization of Patel were correct, directories 44 and 45 in Figure 3 would have some common routing information. However, they do not.

Withdrawal of the rejection is respectfully requested.

PATEL TEACHES AWAY FROM HUNKINS

The MPEP, at § 2143.01, states that "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious", and a "suggested combination of references" is improper when it "would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate".

The rejection proposes combining Patel with Hunkins to achieve VMS's that synchronize. However, as explained above, Hunkins is explicitly designed not to synchronize or share subscriber information. Hunkins teaches database synchronization but has no relation to telephone messaging systems and has no central directory for subscriber information. Patel teaches a regionwide messaging system with one or more routing directories (RMDs), each having subscriber routing information different than the other. That is, each directory stores the

information for routing to the subscribers of its own subset of VMS's. Note in Figure 3 that area code 404 subscribers are on RMD #1, and area code 770 subscribers are on RMD #2.

COMBINATION WOULD SUBSTANTIALY CHANGE REFERENCES

According to MPE P § 2143.01, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious", further discussing that a combination is improper where it would require a "substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.).

As discussed above, Hunkins discloses database synchronizing, and Patel discloses databases that are explicitly designed to be different (not synchronized). See also item (A) of the Office Action, stating that "Applicants should duly note that Hukins [sic] for [sic] synchronizing data in multiple, disparate databases, thereby providing greater accuracy and preserving data integrity". In other words, the disparate databases are synchronized to have essentially identical contents. As also discussed above, the directories in Patel are purposefully different, and routing a message is accomplished using a network element having information used by a VMS to chose the proper directory for routing a message. The references are inherently incompatible; one teaches synchronization, the other is explicitly designed to accommodate different directories. A combination of these references would require a considerable redesign of either or both references.

Furthermore, Hunkins is cited as the primary reference and it is suggested that it be modified to include telephony messaging systems. That is, the rejection proposes modifying Hunkins to include a regionwide messaging system as in Patel. However, modifying a system for synchronizing close-related databases on an organization's network to include the entire functionality of a telephony messaging system would clearly require a substantial reconstruction of Hunkins.

COMBINATION DIFFERS FROM CLAIMS

Although Applicant respectfully but firmly submits that the combination is impossible, Applicant also notes that the combination also does not match all of the features of the claims. According to claim 1, for example, one of the messaging systems sends an update request to a central directory that is shared by different messaging systems. However, Hunkins only teaches databases synchronization. That is, different databases in effect mirror each other. This is different than systems forwarding their updates to a central directory where they can be shared by other systems.

Withdrawal of the rejection is further respectfully requested.

SUGGESTED MOTIVE TO COMBINE REFERENCES LACKS BASIS IN HUNKINS

The rejection states that the motive for the combination is that it "would provide Hunkins the enhanced capability of allowing for routing information to be obtained regarding the subscribers of the messaging systems" (Office Action, page 4, top). However, the rejection provides no explanation of why this is necessary or desirable. Hunkins does not even include messaging systems or subscribers of messaging systems, so there is no capability to be enhanced (note, the claims recite *telephony* messaging systems). Applicant respectfully requests clarification of the suggested motive.

Withdrawal of the rejection is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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